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(54) Title: AN ANTISENSE OLIGONUCLEOTIDE PREPARATION METHOD

(57) Abstract

A method for the preparation of an antisense oligonucleotide or derivative thereof comprising the steps of: selecting a target nucleic acid, if necessary elucidating its sequence; generating the antisense oligonucleotide with the proviso that: the oligonucleotide comprises at least 8 residues; the oligonucleotide comprises at maximum twelve elements, which are capable of forming three hydrogen bonds each to cytosine bases; the oligonucleotide does not contain four or more consecutive elements, capable of forming three hydrogen bonds each with four consecutive cytosine bases (CCCC) within the target molecule or alternatively four or more consecutive elements of GGGG; the oligonucleotide does also not contain 2 or more series of three consecutive elements, capable of forming three hydrogen bonds each with three consecutive cytosine bases (CCC) within the target molecule, or alternatively 2 or more series of three consecutive elements of GGG; and the ratio between residues forming two hydrogen bonds per residue (2H–bond–R) with the target molecule and those residues forming three hydrogen bonds per residue (3H–bond–R) with the target molecule, is ruled by the following specifications: 3H–bond–R/3H–bond–R + 2H–bond–R $\geq$ 0.29; and synthesizing the oligonucleotide thus generated in a per se known manner.